

### **PATENT**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Evans et al.

**Examiner:** 

Becker, Drew E.

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BLUNT EDGE DOUGH

Docket No.

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**CUTTER** Commissioner for Patents

Washington, D.C. 20231

I CERTIFY THAT ON WEDNESDAY, NOVEMBER 6, 2002, THIS PAPER IS BEING DEPOSITED WITH THE U.S. POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED: COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231.

## **Appeal Brief**

Dear Sir:

The above referenced patent application includes claims that have been finally rejected by the Final Official Action dated March 6, 2002. As such, Applicants have appealed from the decision of the Examiner to the Board of Patent Appeals and Interferences by a Notice of Appeal, which was filed on August 6, 2002. Accordingly, it is submitted that this Appeal Brief is timely filed within the shortened-statutory period for filing such Appeal Brief as extended by the Request for One-Month Extension of Time and fee filed herewith. Should any further fee be required, the Commissioner is hereby authorized to charge Kagan Binder Deposit Account No. 50-1775 and thereafter notify us of the same.

This Appeal Brief is enclosed in triplicate.

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# I. Real Party in Interest

The Pillsbury Company, the assignee of record, is the real party in interest.

## II. Related Appeals and Interferences

There are no related appeals and interferences.

## III. Status of the Claims

Claims 60-66 and 68-77 are pending in the application. Claims 75-77 are withdrawn from consideration. Claims 1-59 and 67 are cancelled. Accordingly, claims 60-66 and 68-74 are on appeal.

#### IV. Status of Amendments

A Final Official Action was mailed on March 6, 2002, which was responsive to Applicant's Amendment of November 27, 2001. A Response to the Final Action of March 6, 2002 was filed on August 6, 2002, which responded fully to the Final Action and proposed amendments to claims 66, 68, 71, and 73. An Advisory Action was mailed on August 23, 2002 wherein Applicant's proposed amendments of August 6, 2002 were not entered for the purposes of appeal. No other amendments were proposed after Final Rejection. Accordingly, claims 60-66 and 68-74 stand as amended or submitted prior to the Applicant's Response to Final Action.

#### V. Summary of Invention

Generally, the present invention is directed to dough cutting apparatuses and methods having the capability to both cut and shape a sheet of dough having a first and second skin into individual dough pieces in a single processing step. Both of these functions can be performed in one processing step through the use of a movable cutter having a blunt dough engaging portion. This dough engaging portion includes a dough shaping surface that is advantageously designed to both shape and sever the dough sheet. More specifically, the dough shaping surface includes the capability to draw or stretch a first skin of the dough sheet downwardly toward a second skin of the dough sheet until the skins are substantially pinched together prior to the blunt dough engaging portion severing the dough sheet.

Moreover, an apparatus or method utilizing the movable cutter of the present invention can advantageously be used to sequentially form, in a single step, a plurality of dough pieces having an aesthetically pleasing appearance. In contrast, prior to the present invention, if it was desired to produce a plurality of dough pieces with an aesthetically pleasing, rounded appearance, such as dinner rolls, it was typical to utilize a process including at least two steps. First, by using conventional sharp cutters, a dough sheet was cut to provide a plurality of dough pieces, which typically provided dough pieces with relatively sharp corners and/or planar faces (e.g., cylindrical or block-shaped pieces). Second, these dough pieces were then further manipulated or processed to give the dough pieces a more desirable rounded appearance. The present inventive cutter and method are capable of sequentially and releasably producing a plurality of dough pieces having such a desired round shape in a single processing step.

The present invention, as now recited in claims 60-66 and 68-74, relates to a dough cutter, as set forth in claims 60-66 and 68-70, and method of cutting dough, as set forth in claims 71-74. Specifically, and as is presently recited in independent claim 60 and shown in one exemplary embodiment in Figure 6A, the cutting apparatus of the present invention comprises a moveable cutter 31 capable of sequentially and releasably shaping and cutting a dough sheet to provide a plurality of dough pieces. Such dough pieces are provided for further processing. The movable cutter comprises a blunt dough engaging portion having a thickness of at least approximately 6mm (0.25 inches). The

blunt dough engaging portion includes a dough shaping surface to shape and sever the dough. In particular, the dough shaping surface comprises at least a surface portion that is not perpendicular to the direction of extension of the of the blunt dough engaging portion. As such, the surface portion not perpendicular to the direction of extension of the blunt dough engaging portion can engage against the dough surface and draw or stretch the first skin of the dough sheet downwardly toward the second skin of the dough sheet until the skins are substantially pinched together prior to the blunt dough engaging portion severing the dough sheet.

As presently recited in claim 61, the dough shaping surface of the blunt dough engaging portion can further comprise a rounded corner having a radius of curvature of at least 3mm (1/8 of an inch) as a surface portion that is not perpendicular to the direction of extension of the blunt dough engaging portion. As such, the corners of the blunt dough engaging portion are sufficiently rounded so that when the blunt dough engaging portion is brought into contact with a dough sheet, the top surface of the dough is stretched toward the bottom surface of the dough until the two are effectively sealed together prior to the blunt dough engaging portion severing the dough sheet. In certain preferred embodiments and as set forth in claims 62 and 63, the blunt dough engaging portion can include a flat tip portion or an angled surface, respectively.

Advantageously, the principles of the present invention can be applied to many apparatuses and/or methods. For example, a moveable cutter in accordance with claim 60 can be disposed relative to a rotatable drum (claim 64), a reciprocating head (claim 65), or a walking head (claim 66). Such moveable cutters, when utilized in any apparatus or application, are useful to produce dough products having an aesthetically pleasing appearance as described above.

In one particular preferred embodiment set forth in claims 68-70, the blunt dough engaging portion of the present invention further includes a cutter edge provided adjacent to and spaced from the dough shaping surface for cutting a dough portion from the dough sheet after the dough portion is shaped by the dough shaping surface. The cutter edge is provided as a peripheral edge of the moveable cutter with the dough shaping surface within the periphery of the cutter. The peripheral shape of each dough piece is defined by the cutting edge and is different from that of the dough shaping surface. For example,

the outer periphery may have a hexagonal shape so that, as shown in Figures 11A and 14B, a plurality of these structures may be interconnected in a way to minimize or eliminate space in between the structures, while the inner periphery may be a substantially circular shape, as is desired for many dough products. The resulting dough product will have the appearance of a rounded dome or ball, with its bottom surface as a thin hexagonal flange. The embodiment thus provides the additional advantage of being capable of producing a rounded, aesthetically pleasing dough product, while allowing minimal waste. In contrast, directly cutting out rounded dough pieces from a dough sheet can result in a grid-like structure of waste dough between the individual pieces.

One preferred method of shaping and cutting a dough sheet to sequentially form a plurality of dough pieces is recited in claim 71. The method comprises the steps of providing a sheet of dough, providing a dough cutting apparatus, causing particular ... surfaces of the apparatus to contact the dough sheet to draw the skins together, severing the dough sheet to form the dough pieces, and causing the apparatus to release dough pieces. In particular, the dough cutting apparatus includes a movable cutter with a blunt dough engaging portion having a dough shaping surface as described above to shape and sever the dough pieces. The dough shaping surface contacts the first surface of the dough sheet and thereby draws the first skin toward the second skin and substantially pinches the first and second skins together, then the dough sheet is severed to form the dough pieces. The moveable cutter releases dough pieces so that the dough pieces may be further processed. In another preferred embodiment, the dough sheet can be provided on a conveyor.

Another preferred method of cutting a dough sheet is recited in claim 73. The method comprises the steps of providing a sheet of dough, providing a dough cutting apparatus, causing certain surfaces of the apparatus to contact the dough sheet to draw the skins together, and severing the dough sheet to form the dough pieces. In particular, the dough cutting apparatus comprises a plurality of structures having an outer periphery comprising a cutting edge and an inner periphery comprising a blunt edge dough engaging portion with a dough shaping surface. The outer periphery is also a geometric figure capable of being nested within other similarly shaped geometric figures and the inner periphery is a different shape than the outer periphery. The plurality of structures

having the inner and outer peripheries contact the dough sheet in a manner that causes the inner periphery to draw the first skin toward the second skin without breaking the dough sheet until the first skin and the second skin become substantially pinched together. The outer periphery then severs the dough sheet, thereby creating a plurality of dough pieces. As recited in claim 74, upon further processing of the dough pieces, the dough pieces can expand in volume and be maintained substantially with the geometric figure of the inner periphery.

In summary, then, it can be said that the present invention provides a dough cutting apparatus having a movable cutter and method that can be used not only to cut, but to cut and shape the dough in one processing step, thereby producing an aesthetically pleasing dough product. The novel cutter and method are able to perform these two functions in one processing step by virtue of the inclusion of both the blunt dough engaging portion having the capability to sever a dough sheet and the dough shaping surface having the above described stretching and shaping function. That is, the present invention is based at least partially on the discovery that a blunt edge with a dough shaping surface can not only be used to cut dough, but can also advantageously result in the shaping of the dough to provide dough pieces with aesthetically pleasing or desired shapes.

#### VI. Issues

- 1. Whether claims 60-62, and claim 1 are patentable over U.S. Patent No. 5,622,742 (Carollo) under 35 U.S.C. §§ 102(b) and 103(a).
- 2. Whether claims 60-64, 68, 69, and 71-74 are unpatentable over U.S. Patent No. 5,687,638 (Makowecki) under 35 U.S.C. §§ 102(b) and 103(a).
- 3. Whether claims 65, 66, and 70 are patentable over Makowecki in view of either U.S. Patent No. 4,534,726 (Simelunas) (claims 65 and 66) or RADEMAKER B.V. (claim 70) under 35 U.S.C. § 103(a).

## VII. Grouping of Claims

For the purposes of this appeal, claims 60-66 and 68-74 do not stand or fall together.

#### VIII. Argument

#### Issue 1

Claim 71 stands rejected under 35 U.S.C. §102(b) as being anticipated by Carollo (U.S. Patent No. 5,622,742). In addition, claims 60-62 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Carollo. These rejections should be reversed.

Carollo describes a method of preparing individual stuffed pizzas or stuffed sandwiches, where each pizza or sandwich is formed from a dough shell that holds a stuffing or filling, and a dough lid attached to the dough shell for sealing the filling within the dough shell. The pizzas or sandwiches are each assembled and cooked in an individual cavity portion of a pan. In particular, Carollo provides a first dough sheet to form the lower and side surfaces of each of the dough shells. This first dough sheet is draped over the pan so that the dough sheet conforms to the shape of each of the plural cavity portions of the pan and is draped over the edges of each of the cavity portions. Without the support of the cavity portions of the pan, the dough cannot maintain the shape of the cavity on its own prior to being cooked. Next, a filling or stuffing is placed within each dough shell and a second dough sheet is provided to cover each of the dough shells and the stuffing therein to form a dough lid for each individual stuffed pizza or stuffed sandwich.

In order to define the outer periphery of the stuffed pizza or stuffed sandwich, a rolling pin is rolled over the abutting dough sheets with downward pressure seal the dough sheets together. Cooperative action between the edge of the cavity portion and downward pressure from the rolling pin seals each dough lid to its corresponding dough shell. By such action, the rolling pin effectively presses the abutting first and second dough sheets toward the cavity edge until the dough is so thin that the dough sheets fracture, thereby defining the outer periphery of the stuffed pizza or sandwich. An important function of this step is to seal the lid so the filling cannot leak out. At this point, the pan with the assembled stuffed pizzas or sandwiches is introduced to an oven for cooking. In order to form another batch of stuffed pizzas or sandwiches, the entire process is repeated.

Throughout prosecution, the Examiner has specifically and repeatedly referred to the rolling pin of Carollo, identified by reference numeral 16 therein, as a movable cutter.

In particular, the Examiner has characterized the rolling pin as a movable cutter in his rejection of the present claims 60-62 and 71. This characterization of the rolling pin of Carollo is erroneous. The rolling pin of Carollo (or any rolling pin) does not and cannot possess all of the functional capabilities of a movable cutter as set out in the present invention.

Specifically, the rolling pin of Carollo does not include a blunt dough engaging portion that extends to sever a dough sheet, as is required by the present method claim 71. That is, even if the rolling pin of Carollo could be characterized as a moveable cutter as the Examiner has done, the rolling pin does not include any portion that extends to sever the dough sheet. The rolling pin can only be considered to sever the dough sheet in cooperation with a rolled edge of an entirely separate component (i.e., the cavity portion shown in Figure 4). In other words, there is no suggestion or desire in Carollo to sever the abutting dough sheets in any way other than by the cooperative action of the rolling pin and the rolled edge of the cavity portion. Moreover, the rolling pin of Carollo further lacks a blunt dough engaging portion having a dough shaping surface that can both shape and sever the dough sheet in a single processing step, as is recited in the present claim 71. The cavity portion of Carollo shapes dough, not the rolling pin. Thus, the rolling pin by itself does not possess the capability to shape and/or sever the dough and cannot be characterized as a moveable cutter according to the present claim 71. In addition, Carollo teaches that the stuffed pizzas or stuffed sandwiches are desirably baked within the pan in which they are formed and not removed from the pan prior to cooking. As such, it cannot be said that the method of Carollo teaches the release of a plurality of dough products from a moveable cutter for further processing.

Therefore, there is no teaching or suggestion in Carollo of a method of sequentially providing a plurality of shaped and severed dough products that have been released from a moveable cutter. Moreover, Carollo does not teach or suggest using a moveable cutter having a blunt dough engaging portion that extends to sever a dough sheet and a dough shaping surface to shape and sever the dough sheet. Accordingly, Carollo does not anticipate the present invention as recited in claim 71 and the rejection should be reversed.

With respect to claims 60-62, the Examiner has specifically stated that it would have been obvious to adjust the size and curvature of the rolling pin of Carollo during the course of normal experimentation to arrive at a movable cutter having the size and curvature taught in the present invention. While it may be true that rolling pins are commonly larger than 6mm in diameter, this presumption is irrelevant as the rolling pin of Carollo is functionally lacking features required by the apparatus of claim 60 regarding the blunt dough engaging portion. Specifically, Carollo does not teach or suggest a moveable cutter having a blunt dough engaging portion that extends sufficiently to sever a dough sheet and a dough shaping surface to shape and sever the dough sheet. Additionally, as recited in claim 61, the dough shaping surface of the blunt dough engaging portion of the moveable cutter includes a rounded corner. Such a structure is directly contrary to the teaching of the function of the rolling pin of Carollo. The cylindrical rolling pin of Carollo does not include or suggest to include, and indeed cannot functionally have, a rounded corner of a blunt dough engaging portion that extends to sever a dough sheet. Further, as recited in claim 62, the dough shaping surface of the blunt dough engaging portion of the moveable cutter includes a flat tip portion adjacent to the rounded cutter. For at least the same reasons, such a structure is directly contrary to the teaching of the rolling pin of Carollo. Thus, the rolling pin cannot be characterized as a moveable cutter as recited in claims 60-62.

In addition, a cavity portion of the pan of Carollo cannot be characterized as a moveable cutter. First, there is no teaching or suggestion for the cavity portion, which is an integral portion of the pan, to be moveable in any way, especially for severing and/or shaping a dough sheet. Rather, the pan is functionally provided for holding and supporting while cooking the plural stuffed pizzas or stuffed sandwiches. Secondly, the cavity portion is not capable of sequentially providing a plurality of dough pieces for further processing, nor is there any suggestion of such capability. Instead, Carollo teaches using a pan with plural cavity portions to provide a single product in each cavity portion, where the food product is prepared and cooked in the same pan. Even if one were to characterize a single cavity portion as a cutter of any kind, such a cutter could only be said to cut a single product from a dough sheet, which is in sharp contrast to the

apparatus of the present method which utilizes an apparatus with a movable cutter for cutting multiple products from a single sheet.

Furthermore, one of ordinary skill in the art in possession of Carollo would not be motivated to alter the teachings thereof to arrive at a movable cutter of any kind, especially as recited in claims 60-62. The Carollo reference is directed to a pan within which stuffed pizzas or stuffed sandwiches may be both assembled and cooked. There is no teaching or suggestion that the pan may be used for anything other than assembling stuffed pizzas or stuffed sandwiches for cooking thereof, much less a teaching that the pan can advantageously be used as a movable cutter to sequentially and releasably provide plural dough pieces from a dough sheet. The teachings of Carollo thus do not render claims 60-62 obvious and the rejection thereof should be reversed.

#### Issue 2

Claims 71-74 stand rejected under 35 U.S.C. §102(b) as being anticipated by Makowecki (U.S. Patent No. 5,687,638). In addition, claims 60-64 and 68-69 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Makowecki. These rejections should be reversed.

The Makowecki reference describes co-extruding multiple filled food tubes onto a conveyor that conveys the filled tubes into contact with a rotary stamper disk for moving and partitioning the filled tubes into molded filled food segments. As shown in Figure 5, the rotary stamper disk includes stamping dies 38, which function as a mold to achieve a desired shape of the filled food product segments 32 to be formed from the filled food tubes. In particular, Makowecki discusses the formation of crescent shaped filled food products, such as perogies or dumplings, which are molded from a filled food tube or shell. The stamping dies function to mold the filled tube into the filled segments. As a stamping die rotates into contact with the filled tube, the entire filled tube is deformed to conform to the shape of the stamping die in order to achieve the desired shape of a filled segment. On further rotation of the stamping die, the filled segment molded by the stamping die is severed by cutting edges 39. After the cutting edges 39 cut the filled segment sealing lips 41 urge the severed portions of the tube together to seal the filling inside the filled segment.

There would be no motivation for one to utilize the teachings of the Makowecki method for molding a filled food product tube in a process for shaping and cutting a dough sheet. Makowecki does not suggest or teach any reason that its device would be appropriate for use in drawing a first skin of a dough sheet toward a second skin of the same dough sheet. It is a fundamentally different operation to stretch a skin of a dough sheet to form individual dough products than it is to mold a filled food product tube into individual food product segments. By its nature, such a molding process converts the tube shape into the mold shape by deforming the entire tube. As recited in claim 60, the blunt dough engaging portion of the present invention engages with the first skin and draws or stretches the first skin towards the second skin. This is fundamentally different from molding a filled tube as in Makowecki. That is, the elongated cylindrical filled food shell cannot be characterized as a dough sheet having first surface with a first skin and a second surface having a second skin.

Moreover, to try to force an interpretation of Makowecki in which sealing lips 41 would be capable of severing the cylindrical filled food tubes would be directly contrary to the teachings of this same reference. If a construction of Makowecki were allowed in which sealing lips 41 cut the filled tube, the resulting food products would not have the desired appearance and importantly, the tube would not be sealed and the filling would be able to leak out. This is directly contrary to the teaching of Makowecki.

For the reasons set out above, Makowecki does not teach or disclose every element of claim 71 and thus cannot anticipate this claim. With respect to claim 72, the addition of a conveyor does not overcome the deficiency of Makowecki and therefore claim 72 cannot be anticipated by Makowecki. Accordingly, the rejection of these claims should be reversed.

With respect to claim 73, Makowecki does not teach or disclose a dough cutting apparatus having a plurality of structures with inner and outer peripheries having different geometries, the inner periphery having blunt edge dough engaging portion and the outer periphery having a cutting edge, so that when the plurality of structures are caused to contact a dough sheet the inner periphery shapes the dough, while the outer periphery severs the dough sheet. The Examiner seems to be contending that the cutting edge 39 of Figure 5 comprises an outer periphery and that sealing lips 41 comprise an

inner periphery; however, this contention is in conflict with the ordinary usage of those terms. Specifically, the term 'periphery' is commonly associated with an external boundary or shape, such as the outer boundary of a shape of a dough piece of the present invention. Because the cutting edge 39 and sealing lips 41 are each part of the same external boundary of stamping die 38, they cannot be defined individually as an outer periphery and an inner periphery. Thus, claim 73 is not anticipated by Makowecki. Claim 74 cannot be anticipated by Makowecki at least as it depends from independent claim 73. Accordingly, the rejection of these claims should be reversed.

With respect to claims 60, the cutter of Makowecki comprises sealing edges 41 and cutting edge 39, as discussed above. Neither sealing edges 41 nor cutting edge 39 both shape and cut food products. Rather, cutting edge 39 cuts the cylinder of filled food product while sealing edge 41 crimps and seals the cut food cylinder to produce individual filled food products. The cutter of Makowecki thus does not comprise a dough shaping surface that both severs and shapes the dough. In addition, Makowecki does not teach or suggest such a cutter, as Makowecki instead teaches the desirability of providing filled dough products with traditional peripheral borders. The addition of a rounded corner, flat tip portion, and/or angled surface as set forth in claims 61, 62, and 63 respectively does not overcome the deficiency of Makowecki. Also, as recited in claim 64, the limitation of being disposed to relative to a dough supporting structure on a rotatable drum does not overcome the deficiency of Makowecki. Thus, the teaching of Makowecki cannot be said to render obvious the cutter as is recited in claims 60-64 and reversal of this rejection is appropriate.

The Makowecki reference has additionally been applied to claims 68-69. As discussed above, Makowecki does not teach or suggest a cutter comprising a plurality of structures having inner and outer peripheries of different geometries. As such Makowecki cannot be said to render claims 68 and 69 obvious. The rejection of the claims should be reversed.

#### Issue 3

Claims 65-66 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Makowecki as applied in view of U.S. Patent No. 4,534,726 to Simelunas. As discussed

above, Makowecki does not teach or suggest a dough shaping surface that both cuts and shapes the dough, but rather requires both a sealing lip and a cutting edge to perform each function. Likewise, Simelunas does not teach or suggest such a dough shaping surface, and as such, the fact that Simelunas may teach a walking or reciprocating head cutter is immaterial, as the combination would still not teach or suggest each and every element of 60 from which claims 65 and 66 depend. Thus, these claims cannot be said to be obvious over this combination of references. Accordingly, the rejection of these claims should be reversed.

Finally, claim 70 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Makowecki as applied in view of RADEMAKER B.V. Although the Rademaker pamphlet may show various cutter configurations with multiple illustrated shapes, none of these cutters comprise a cutter edge adjacent to and spaced from a dough shaping surface, wherein the cutter edge is provided on the outer periphery and a dough shaping surface is provided on the inner periphery. Rather, both the inner and outer peripheries of the cutters shown in Rademaker comprise cutting edges to provide dough pieces with a cut-out in the shape of the inner cutting edge. The teachings of the Rademaker pamphlet do not remedy the deficiencies of Makowecki et al, and this combination of references cannot be said to render claim 70 obvious. The rejection of claim 70 should thus be reversed.

#### IX. Conclusions

In view of the foregoing, it is submitted that claims 60-66 and 68-74 are in condition for allowance. It is respectfully requested that the Examiner's decision finally rejecting claims 60-66 and 68-74 be reversed by the Board of Patent Appeals and Interferences.

Dated: November 6, 2002

Respectfully Submitted,

Michaele A. Hakamaki, Reg. No. 40,011

33072

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#### X. Appendix – Claims on Appeal

60. A dough forming and cutting apparatus for shaping and cutting a dough sheet to provide a plurality of dough pieces, the dough sheet for further processing having a first surface with a first skin and a second surface with a second skin, the apparatus comprising:

a moveable cutter capable of sequentially and releasably shaping and cutting the dough sheet to provide at least a portion of the plurality of dough pieces and having a blunt dough engaging portion which is at least approximately 6 mm thick and that extends sufficiently to sever the dough sheet, the blunt dough engaging portion having a dough shaping surface to shape and sever the dough sheet;

wherein the dough shaping surface comprises at least a surface portion that is not perpendicular to the direction of extension of the blunt dough engaging portion for engaging against the dough surface and drawing the first skin toward the second skin until they are substantially pinched together before cutting the first skin.

- 61. The apparatus of claim 60, wherein the dough shaping surface of the blunt dough engaging portion comprises a rounded corner having a radius of curvature of at least approximately 3mm as a surface portion that is not perpendicular to the direction of extension of the blunt dough engaging portion.
- 62. The apparatus of claim 61, wherein the dough shaping surface of the blunt dough engaging portion further comprises a flat tip portion adjacent to the rounded corner.
- 63. The apparatus of claim 60, wherein the dough shaping surface of the blunt dough engaging portion comprises at least one angled surface as a surface portion that is not perpendicular to the direction of extension of the blunt dough engaging portion.
- 64. The apparatus of claim 60, being disposed relative to a dough supporting structure on a rotatable drum.

- 65. The apparatus of claim 60, being disposed relative to a dough supporting structure on a reciprocating head.
- 66. The apparatus of claim 60, being disposed relative to a dough supporting structure on walking head for intermittently engaging the dough sheet and traveling with the dough sheet.
- 68. The apparatus of claim 60, wherein the blunt dough engaging portion further includes a cutter edge provided adjacent to and spaced from the dough shaping surface for serving a dough portion from the dough sheet after the dough portion is shaped by the dough shaping surface, and wherein the cutter edge is provided as a peripheral edge of the cutter with the dough shaping surface within the periphery of the cutter, and the peripheral shape defined by the cutting edge is different from the shape of the dough shaping surface.
- 69. The apparatus of claim 68, wherein the cutting edge's outer periphery is a geometric figure capable of being nested within other similarly shaped geometric figures.
- 70. The apparatus of claim 69, wherein the cutting edge's outer periphery is substantially hexagonal, and the dough shaping surface's inner periphery is substantially circular.
- 71. A method of shaping and cutting a dough sheet to sequentially form a plurality of dough pieces; comprising:
  - a) providing a sheet of dough having a first surface with a first skin and a second surface with a second skin;
  - b) providing a dough cutting apparatus having a movable cutter with a blunt dough engaging portion that extends sufficiently to sever the dough sheet, the blunt dough engaging portion having a dough shaping surface to shape and sever the dough sheet;

- c) causing the dough shaping surface of the blunt dough engaging portion to contact the first surface of the dough sheet and thereby drawing the first skin toward the second skin and substantially pinching the first and second skins together; and
- d) severing the dough sheet with the blunt dough engaging portion after the first skin and the second skin become substantially pinched together to form at least a portion of the plurality of dough pieces; and
- e) causing the moveable cutter to release the at least a portion of the plurality of dough pieces so that the dough pieces may be further processed.
- 72. The method of claim 71, wherein the sheet of dough is provided on a conveyor and caused to move in a direction substantially perpendicular to the extension of the blunt dough engaging portion.
- 73. A method of cutting a dough sheet; comprising:
  - a) providing a sheet of dough having a first surface with a skin and a second surface with a second skin;
  - b) providing a dough cutting apparatus comprising a plurality of structures having an outer periphery comprising a cutting edge and an inner periphery comprising a blunt edge dough engaging portion with a dough shaping surface, wherein the outer periphery is a geometric figure capable of being nested within other similarly shaped geometric figures and wherein the inner periphery is a different shape;
  - c) causing the plurality of structures to contact the dough sheet thereby causing the inner periphery to draw the first skin toward the second skin without breaking the dough sheet until the first skin and the second skin become substantially pinched together; and
  - d) causing the outer periphery to sever the dough sheet thereby creating a plurality of dough pieces.

74. The method of claim 73, wherein the method of producing the dough product further comprises a step of processing the dough pieces in a manner that results in the dough pieces expanding in volume, and whereby the enlarged dough pieces are maintained substantially with the geometric figure of the inner periphery.

MAH/5654